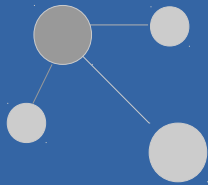




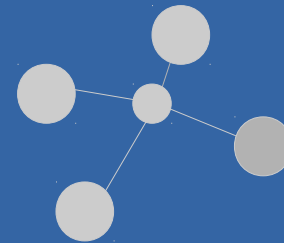
Semantic MediaWiki

Current Status and New Features in 3.2.x

Karsten Hoffmeyer, Professional.Wiki
November 25, 2020



SMWCon 2020
November 24 to 26, worldwide online



Semantic MediaWiki

- Current Status
- Semantic MediaWiki 3.2
- How you can contribute?

Current Status of Semantic MediaWiki

→ Releases since SMWCon 2019

- SMW 3.1.x – 6 releases

3.1.0, 3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.1.5, 3.1.6

- SMW 3.2.x – 2 releases

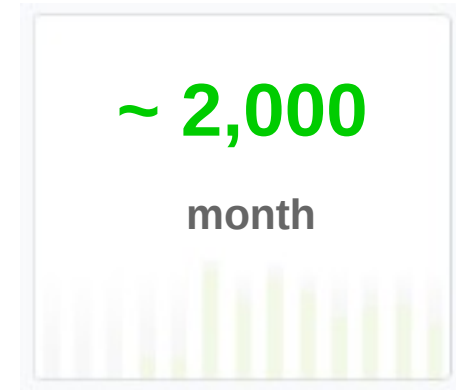
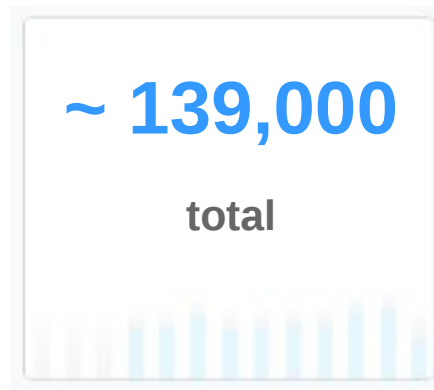
3.2.0, 3.2.1

Semantic MediaWiki

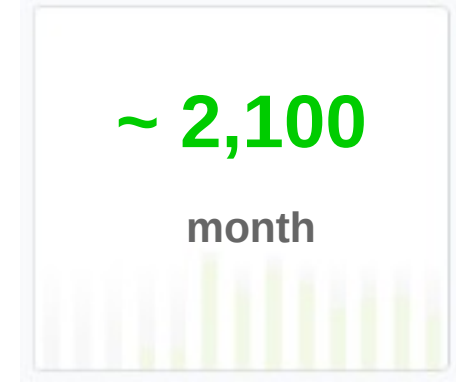
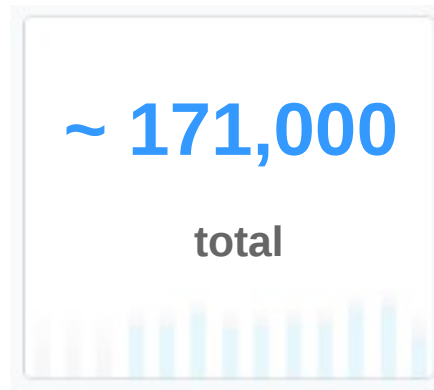
Current Status

Installation Processes

September 2019



November 2020



Source: <https://packagist.org/packages/mediawiki/semantic-media-wiki/stats> - Start in January 2014

Semantic MediaWiki

Current Status

- New Release Policy
 - Major release
 - Removal of support for versions of MediaWiki
 - Changes that require “update.php”
 - Breaking changes to functionality, e.g. syntax
- [Release Policy](#)

Semantic MediaWiki

Semantic MediaWiki 3.2.0

Released on September 7, 2020

Semantic MediaWiki

Semantic MediaWiki 3.2.0

→ Focus this time

- Mostly software administration
- Some user facing improvements

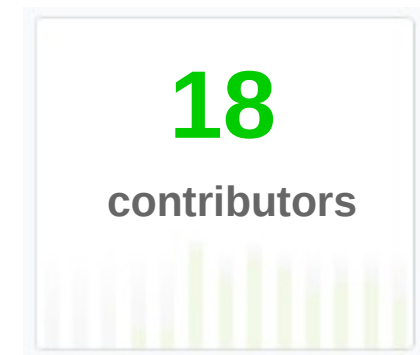
Semantic MediaWiki

Semantic MediaWiki 3.2.0

GitHub Commits

September 2019 –
September 2020

SMW 3.1.0 –
SMW 3.2.0



Sources:

- <https://github.com/SemanticMediaWiki/SemanticMediaWiki>
- `git log 0acc38fba2e13198f85060d08fbb055ec5452ec0...9f0086171cb1299993bcc82b9a64f92c23b4bc53 --pretty=oneline | wc -l`
- `git shortlog -sn 0acc38fba2e13198f85060d08fbb055ec5452ec0...9f0086171cb1299993bcc82b9a64f92c23b4bc53`

Compatibility

- MediaWiki 1.31.x to MediaWiki 1.35.x
- PHP 7.1.x to PHP 7.4.x
- MySQL/MariaDB relational stores 5+
- Several RDF stores (Blazegraph 1.5.2+, etc.)
- Elasticsearch store 5.6+

Semantic MediaWiki

Semantic MediaWiki 3.2.0

Features and enhancements for users:

- Adds a navigation bar to the schema page ^[#4417]
- Adds search field to schema navigation ^[#4422]
- Shows profile schema on property page ^[#4657]

Property:Visitors

- Has type: Number
- Profile schema: [Profile:VisitorsRangeGroup](#)
- Constraint schema: [Constraint:NonNegativeInteger](#)

Usage 59 Constraint schema Profile schema

Search:

```
{
  type: "PROPERTY_PROFILE_SCHEMA",
  - profile: {
    - range_group: {
      0 - 10 000: "0...10000",
      10 001 - 100 000: "10001...100000",
      100 001 - 500 000: "100001...500000",
      500 001 - 1 000 000: "500001...1000000",
      1 000 001 - 5 000 000: "1000001...5000000",
      5 000 000+: "5000001...INF"
    }
  }
}
```

smw/schema:Search-profile-form-definition

Summary Schema

Search:

```
{
  type: "SEARCH_FORM_SCHEMA",
  - forms: {
    - Books and journals: [
      "Has title",
      "Has author",
      "Published",
      - {
        - Has genre: {
          autocomplete: true
        }
      },
      - {
        - Has Publisher: {
          autocomplete: true,
          placeholder: "Publisher ..."
        }
      }
    ],
    - Media and files: [
      + { - },
      + { - },
      + { - }
    ]
  },
  - namespaces: {
    - Media and files: [
      "NS_FILE"
    ]
  }
}
```

Summary Schema Usage 1

Search:

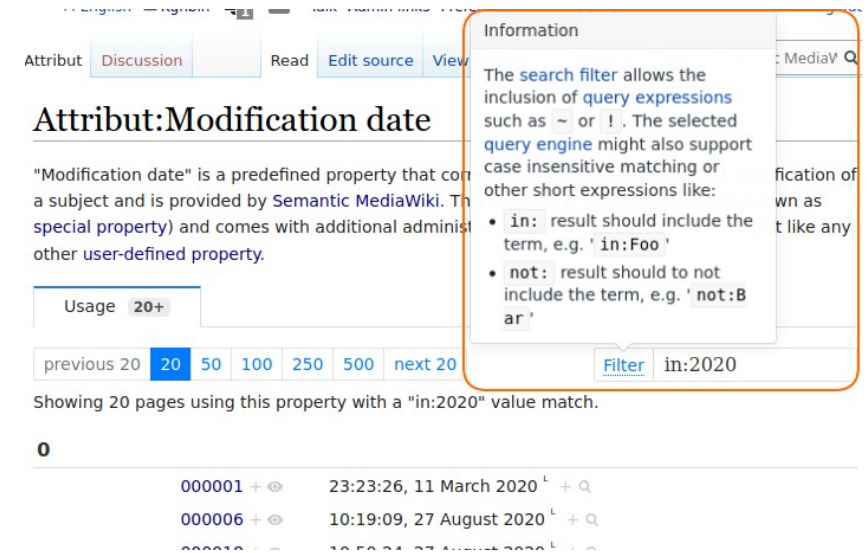
```
{
  type: "PROPERTY_CONSTRAINT_SCHEMA",
  - constraints: {
    non_negative_integer: true
  },
  - tags: [
    "property constraint",
    "integer",
    "number"
  ]
}
```

Semantic MediaWiki

Semantic MediaWiki 3.2.0

Features and enhancements for users:

- Improved help for value filtering on property pages [#4490]
- Warning message about functionless property namespace shown [#4686]
- Predefined property groups are provided [#4592]
- Structure of schema definitions changed (BREAKING) [#4592]
- New alias “namedargs” to the “named args” parameter for result formats supporting it [#4655, #4664, #4665]



Semantic MediaWiki

Semantic MediaWiki 3.2.0

Features and enhancements for users:

- New parameters “max-width” and “theme” to `#info: parser function` ^[#4568]
- New entity issue panel informing about problems with stored data ^[#4554]

Page **Discussion** Read Edit View history Search mw3203

MustExists/A

< MustExists

MustExists/1a ⓘ MustExists/1b ⓘ

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Suspendisse ultricies n consequat luctus. Mauris quis ipsum ut purus pretium consectetur. Suspendisse Aenean ac tortor convallis, imperdiet orci id, varius nibh. Nam in ex sed ante co metus lobortis venenatis. Etiam rutrum odio tortor, ac cursus lectus sollicitudin vehicula dolor mattis ac. Sed faucibus facilis eleifend. Proin hendrerit, diam ex aliquet diam, sit amet suscipit erat ligula eget justo. Etiam eu lobortis enim. Cras Integer eu justo justo. Mauris justo elit, tincidunt vestibulum aliquam at, tempor Quisque ac augue ultricies, cursus urna sed, lobortis lorem. Proin gravida nulla varius natoque penatibus et magnis dis parturient montes, nascetur ridiculus m et, blandit elementum magna. Phasellus at sagittis erat, ac aliquam ligula. Nulla tristique vel iaculis velit. Sed a dui condimentum diam suscipit tincidunt non a a Aliquam pharetra urna sapien, sed luctus mi posuere sit amet. Phasellus eget c volutpat, porttitor nulla et, tempus tortor. Donec varius sed lacus a faucibus. Cla per conubia nostra, per inceptos himenaeos. Cras ac scelerisque magna. Maur Phasellus et orci ultrices, vehicula nulla vel, vulputate magna. Integer id congue

Entity issue panel

As part of the entity examination, the following issue was found and it is suggested to carefully review the issue and take appropriate action.

Constraint

- A `must_exists` constraint is assigned to the “`MustExists`” property and the `MustExists/1a` value annotation is violating the constraint requirement.
- A `must_exists` constraint is assigned to the “`MustExists`” property and the `MustExists/1b` value annotation is violating the constraint requirement.
- A `must_exists` constraint is

constraint

Information

Integer eu justo justo. Mauris justo elit, tincidunt vestibulum aliquam at, tempor sed nisl. In hac habitasse platea dictumst. Quisque ac augue ultricies, cursus urna sed, lobortis lorem. Proin gravida nulla nisi, non cursus augue laoreet eget.



Information

Integer eu justo justo. Mauris justo elit, tincidunt vestibulum aliquam at, tempor sed nisl. In hac habitasse platea dictumst. Quisque ac augue ultricies, cursus urna sed, lobortis lorem. Proin gravida nulla nisi, non cursus augue laoreet eget.

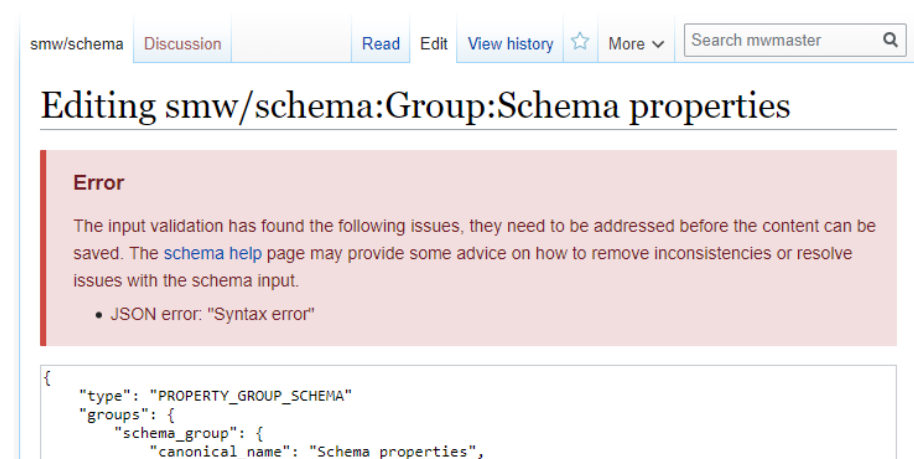


Semantic MediaWiki

Semantic MediaWiki 3.2.0

Features and enhancements for users and admins:

- Adds support for formal schema validation ^[#4404]
- Displays schema validation errors ^[#4633]
- New user group “smweditor” ^[#4721]
- New user permissions
 - “smw-vieweditpageinfo” ^[#4721]
 - “smw-viewjobqueuewatchlist” ^[#4698]
 - “smw-viewentityassociate
drevisionmismatch” ^[#4698]



The screenshot shows the 'Editing smw/schema:Group:Schema properties' page in Semantic MediaWiki 3.2.0. At the top, there is a navigation bar with tabs for 'Discussion', 'Read', 'Edit', 'View history', and 'More'. A search bar labeled 'Search mwmaster' is on the right. Below the navigation bar, the page title is 'Editing smw/schema:Group:Schema properties'. A red error box is displayed, indicating a validation issue. The error message states: 'The input validation has found the following issues, they need to be addressed before the content can be saved. The [schema help](#) page may provide some advice on how to remove inconsistencies or resolve issues with the schema input.' Below this, a list of errors is shown: '• JSON error: "Syntax error"'. The JSON input field is visible below the error message, showing a partial JSON structure: { "type": "PROPERTY_GROUP_SCHEMA", "groups": { "schema_group": { "canonical_name": "Schema properties",

Semantic MediaWiki

Semantic MediaWiki 3.2.0

Features and enhancements for admins:

- Introduces setup checks ^[#4438, #4461, #4439]
 - Issues with extension loading
 - Issues with extension dependencies
 - Issues with extension incompatibilities
 - Issues with database requirements
 - Issues with configuration profile
 - Issues with schema key
 - Many more ...
 - Setup check (s-mw.org)
- Basic configuration checks ^[#4682, #4687]

Semantic MediaWiki Dependency error

SemanticMediaWiki is not compatible with the current MediaWiki core (version 1.32.3), it requires: ≥ 1.33 .

Version

| | |
|---------------------|------------------------------|
| Semantic MediaWiki: | 3.2.0-alpha (smw:2019-09-23) |
| MediaWiki: | 1.32.3 |
| Code: | ERROR_EXTENSION_INCOMPATIBLE |

How can I fix this error?

The issue can only be resolved by updating the software (or environment) to match the minimum requirement.

Semantic MediaWiki Error

During the installation, the setup check found that the minimum requirement for the database environment defined by Semantic MediaWiki didn't match with the version available and is the reason why the installation of Semantic MediaWiki was aborted.

Requirement

| | |
|------------------|----------|
| Database type: | postgres |
| Minimum version: | 9.12 |
| Current version: | 9.6.16 |

Version

| | |
|---------------------|-----------------------------------|
| Semantic MediaWiki: | 3.2.0-alpha (smw:2019-09-23) |
| MediaWiki: | 1.33.1 |
| Code: | ERROR_DB_REQUIREMENT_INCOMPATIBLE |

How can I fix this error?

The issue can only be resolved by updating the software (or environment) to match the minimum requirement.

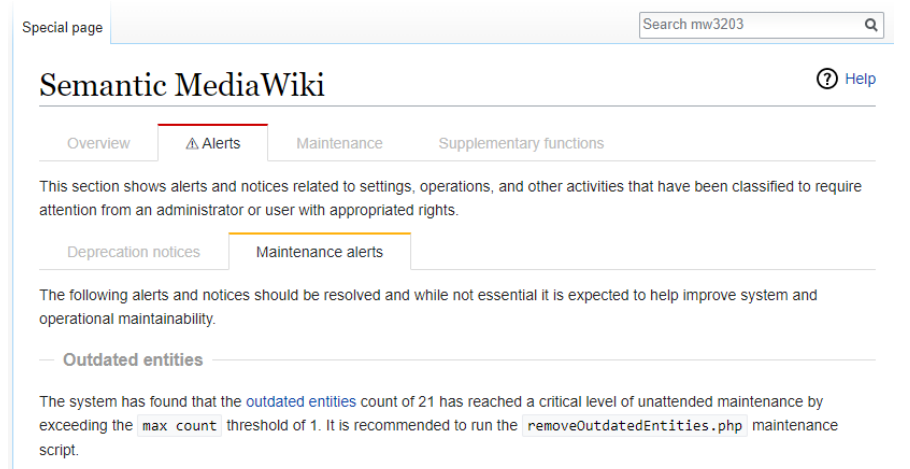
To temporarily disable this error output and return to a working MediaWiki (without Semantic MediaWiki), remove the `enableSemantics` from your `LocalSettings.php`.

Semantic MediaWiki

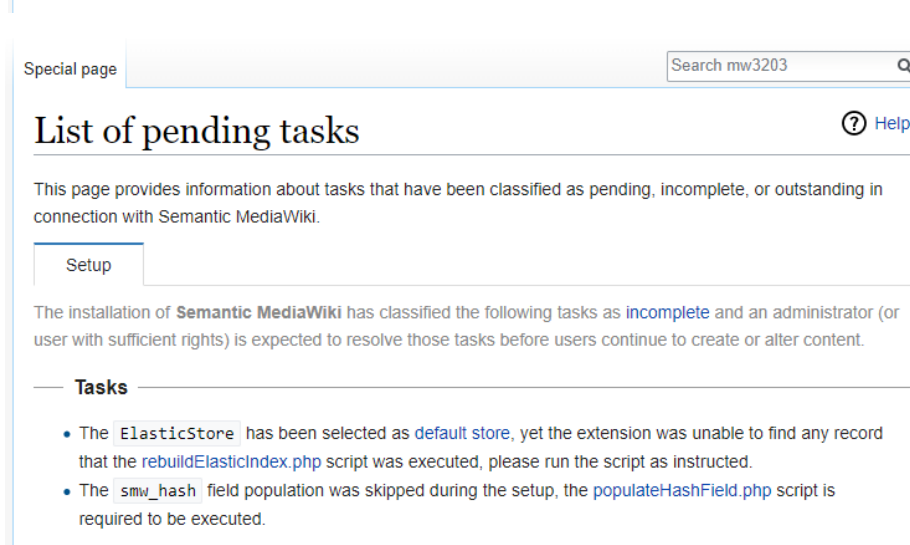
Semantic MediaWiki 3.2.0

Features and enhancements for admins:

- Configuration preloading ^[#4684, #4732]
 - Default configuration profiles provided
 - Custom configuration profiles
 - Configuration preloading (s-mw.org)
- Maintenance alerts ^[#4468, #4744]
 - Checks for outdated entities
 - Checks for table optimizations
 - Maintenance alerts (s-mw.org)
- Special page “PendingTaskList” ^[#4458]



The screenshot shows the 'Alerts' section of the Semantic MediaWiki interface. At the top, there is a search bar with 'mw3203' and a 'Special page' label. Below the search bar, the page title 'Semantic MediaWiki' is displayed with a 'Help' link. A navigation bar contains 'Overview', 'Alerts' (highlighted), 'Maintenance', and 'Supplementary functions'. The main content area has a sub-navigation bar with 'Deprecation notices' and 'Maintenance alerts' (highlighted). The text below states: 'This section shows alerts and notices related to settings, operations, and other activities that have been classified to require attention from an administrator or user with appropriated rights.' It then lists 'Outdated entities' as a critical alert, noting that the count of 21 has reached a threshold of 1, and recommends running the 'removeOutdatedEntities.php' script.



The screenshot shows the 'List of pending tasks' page in Semantic MediaWiki. It features a search bar with 'mw3203' and a 'Special page' label. The page title is 'List of pending tasks' with a 'Help' link. A navigation bar includes 'Setup' (highlighted). The main text explains that tasks are classified as pending, incomplete, or outstanding. A 'Tasks' section lists two items: 1) 'ElasticStore' selected as the default store, with a note that the 'rebuildElasticIndex.php' script was not executed; 2) 'smw_hash' field population skipped during setup, with a note that the 'populateHashField.php' script is required.

Semantic MediaWiki

Semantic MediaWiki 3.2.0

Features and enhancements for admins:

- Maintenance script “runImport.php” [#4466]
 - Import schemas and vocabulary
- Maintenance script “disposeOutdatedEntities.php” [#4484]
- Client output of maintenance scripts modernized and improved [#4403, #4462, #4463, #4464, #4551, #4552, #4553, #4517, #4585, #4636, #4734]
- Shows status, version, configuration and endpoints of Elasticsearch on special page “SemanticMediaWiki” [#4484#4646]

```
...index change_tag_rc_tag_id already set on change_tag table.
...have ipb_sitewide field in ipblocks table.
...ipblocks_restrictions table already exists.

=== Sematic MediaWiki ===

Semantic MediaWiki:                               3.2.0-alpha
MediaWiki:                                         1.32.6

--- Database setup ---

Storage engine:                                   SMWSQLStore3

----- Core tables -----

Checking table smw_object_ids ...
    Table not found, now creating...
    ... done.
Checking index structures for table smw_object_ids ...

...

--- Table optimization ---
The optimization task can take a moment to complete and depending on the
database backend, tables can be locked during the operation.

Checking table ...
    ... smw_object_ids ..... analyze, optimize ✓
    ... smw_object_aux ..... analyze, optimize ✓
    ... smw_concept_cache ..... analyze, optimize ✓
...

Import processing completed.

--- Summary ---
- Create tables ..... 0.89 sec
- Post-creation examination ..... 0.13 sec
- Table optimization ..... 0.54 sec
```

Features and changes

- Release notes at <https://bit.ly/smw-320>

Semantic MediaWiki

How can you contribute?

Semantic MediaWiki

How can you contribute?

- Where are many ways to contribute
 - Create a quality feature requests (→ click here)
 - File quality bug reports on issues you encounter (→ click here)
 - Contribute code with tests, tests and tests (→ click here)
 - Become part of the testers group and test (→ click here)

Semantic MediaWiki

How can you contribute?

→ Where are many ways to contribute (cont.)

- Add or enhance documentation (→ click here)
- Add or enhance translations (→ click here)
- Answer questions and participate in discussions (→ click here)
- Organize events (→ click here)

Thank you!